Access DB# 1-5016

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Dunna Jean Examiner #: 17 Date: 4/24/02
Art Unit: 1614 Phone Number 30[illegible]-5822 Serial Number: [illegible]
Mail Box and Bldg/Room Location: 2004 Results Format Preferred (circle): PAPER DISK E-MAIL
2001

If more than one search is submitted, please prioritize searches in order of need. #5

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Dental & Oralogic Composition

Inventors (please provide full names): See Bib Data Sheet enclosed

Earliest Priority Filing Date: 12/3/99

***For Sequence Searches Only:** Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Structure Search on Composition
Elected Claims: 1-12 + 21-22
Photo Catalytic Titanium Dioxide
See attached Claim

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
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jan.delaval@uspto.gov

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****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: [illegible]	NA Sequence (#)	STN ✓
Searcher Phone #: [illegible]	AA Sequence (#)	Dialog
Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up: 5.1.02	Bibliographic	Dr.Link
Date Completed: 5.1.02	Litigation	Lexis/Nexis
Searcher Prep & Review Time:	Fulltext	Sequence Systems
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time: ✓	Other	Other (specify)

PTO-1590 (1-2000)

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=> fil reg
FILE 'REGISTRY' ENTERED AT 09:32:16 ON 01 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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STRUCTURE FILE UPDATES:   29 APR 2002  HIGHEST RN 409058-68-0
DICTIONARY FILE UPDATES:  29 APR 2002  HIGHEST RN 409058-68-0

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Calculated physical property data is now available.  See HELP PROPERTIES
for more information.  See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d sta que l41
L33             STR
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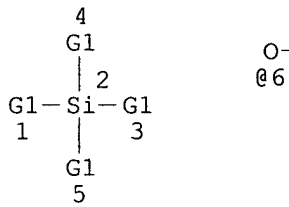


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VAR G1=X/6
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   7

STEREO ATTRIBUTES: NONE
L35             SCR 1735 OR 1817
L39             SCR 2039 OR 2050 OR 2049 OR 2053 OR 2052 OR 2051 OR 2054
L41        2617 SEA FILE=REGISTRY CSS FUL L33 AND L35 NOT L39

100.0% PROCESSED 385675 ITERATIONS                          2617 ANSWERS
SEARCH TIME: 00.00.15


=> d his

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                E JP99-344938/AP,PRN
L1           1 S E4
                E KURARAY/PA,CS
                E KURAR/PA,CS
L2       11364 S E5-E15
                E MASUHARA E/AU
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L3          190 S E3-E6
                E KADOMA Y/AU
L4          113 S E3,E11,E12
                E YAMAUCHI J/AU
L5          327 S E3-E5,E11-E16
                E YAMAGUCHI S/AU
L6          885 S E3-E5,E48
                E EIICHI M/AU
L7            1 S E7
                E YOSHINORI K/AU
                E JUNICHI Y/AU
L8            1 S E4
                E SATOSHI Y/AU
L9            2 S E3,E4
L10       12736 S L2-L9
L11         393 S L10 AND ?TITAN?
L12         171 S L10 AND TI
L13         242 S L10 AND TIO2
L14         574 S L11-L13
L15          10 S L14 AND SI
L16          37 S L14 AND SIO2
L17         120 S L14 AND (?SILIC? OR ?SILAN? OR SILAZ? OR ?SILOX?)
L18         123 S L15-L17
                E OKADA K/AU
L19         566 S E3
                E OKADA KOI/AU
L20         142 S E4,E5
                E KOICHI O/AU
L21          28 S L19,L20 AND (?TITAN? OR TI OR TIO2)
L22           8 S L21 AND (SI OR SIO2 OR ?SILIC? OR ?SILAN? OR SILAZ? OR ?SILOX
L23           0 S  L14,L21 AND ?SILAZ?
L24         128 S L18,L22
L25           1 S L1 AND L24
                SEL RN L25
L26         127 S L24 NOT L25

     FILE 'REGISTRY' ENTERED AT 08:37:54 ON 01 MAY 2002
L27           7 S E1-E7

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                SET SMARTSELECT ON
L28          SEL L26 1- RN :     511 TERMS
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 08:38:19 ON 01 MAY 2002
L29         511 S L28
L30          33 S L29 AND TI/ELS
L31          71 S L29 AND SI/ELS
L32          66 S L31 NOT L30
L33             STR
L34           9 S L33 CSS
L35             SCR 1735 OR 1817
L36           9 S L33 AND L35 CSS
L37             SCR 2127 OR 1838 OR 1992 OR 2016 OR 2021 OR 2008
L38          15 S L33 AND L35 NOT L37 CSS
L39             SCR 2039 OR 2050 OR 2049 OR 2053 OR 2052 OR 2051 OR 2054
L40           9 S L33 AND L35 NOT L39 CSS
                E TI/ELS
L41        2617 S L33 AND L35 NOT L39 CSS FUL
                SAV L41 JAGOE728/A
L42         670 S L41 NOT PMS/CI
L43           3 S L42 AND IDS/CI
L44           2 S  L43 NOT N/ELS
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L45          226 S L42 AND NC>=2
L46          215 S L45 AND COMPD
L47           11 S L45 NOT L46
L48           11 S L46 AND OL
L49          441 S L42 NOT L43-L48
                 E TITANIUM OXIDE/CN
L50            2 S E3
L51         1947 S L41 NOT L42-L49
L52           13 S 67-56-1 OR 64-17-5 OR 71-23-8 OR 67-63-0 OR 62309-51-7 OR 352
L53            5 S (ACETONE OR CHLOROFORM OR HEXANE OR ETHYL ACETATE OR METHYL E
L54            3 S (SILVER OR COPPER OR ZINC)/CN

     FILE 'HCAPLUS' ENTERED AT 08:57:33 ON 01 MAY 2002
L55        25787 S L44 OR L49
L56         5136 S L55 AND (L50 OR TI OR TIO2 OR ?TITAN?)

     FILE 'REGISTRY' ENTERED AT 09:00:04 ON 01 MAY 2002
L57            1 S TITANIUM/CN

     FILE 'HCAPLUS' ENTERED AT 09:00:10 ON 01 MAY 2002
L58          566 S L57 AND L55
L59         5144 S L56,L58
L60          644 S L59 AND L52,L53
L61         1938 S L59 AND (?ALCOHOL? OR WATER OR H2O OR W OR ACETONE OR METHYLE

     FILE 'REGISTRY' ENTERED AT 09:01:35 ON 01 MAY 2002
L62            1 S TOLUENE/CN
L63            1 S WATER/CN

     FILE 'HCAPLUS' ENTERED AT 09:01:42 ON 01 MAY 2002
L64          187 S L62,L63 AND L59
L65         2116 S L60,L61,L64
L66          893 S L59 AND (METHANOL OR ETHANOL OR PROPANOL OR BUTANOL OR MEOH O
L67           48 S L59 AND (METHYL OR ETHYL OR PR PROPYL OR ISOPROPYL OR BUTYL)(
L68          364 S L66,L67,L65 AND (L54 OR SILVER OR COPPER OR ZINC OR AG OR CU
                 E DENTAL/CT
                 E E47+ALL
L69        10183 S E2
                 E E2+ALL
L70        15374 S E2+NT
L71          432 S E49+NT
                 E E50+ALL
L72        16015 S E9,E8+NT
L73            2 S L68 AND L69-L72
                 E MOUTH/CT
                 E E3+ALL
L74        39822 S E7+NT
                 E MEDICAL GOODS/CT
                 E E3+ALL
L75        21086 S E5,E6,E4+NT
L76            4 S L68 AND L74,L75
L77            2 S L76 NOT (BIOFILM OR IR)/TI
L78            2 S L73,L77
L79           20 S L10 AND L55
L80            4 S L79 AND L59
L81            1 S L80 AND L78
L82           16 S L79 NOT L80
L83           22 S L59 AND L69-L72,L74,L75
L84           18 S L83 NOT L76
L85           20 S L78,L81,L84
L86           20 S L85 AND L1-L26,L55,L56,L58-L61,L64-L85

     FILE 'REGISTRY' ENTERED AT 09:14:16 ON 01 MAY 2002
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L87           1 S SILICA/CN

     FILE 'HCAPLUS' ENTERED AT 09:14:21 ON 01 MAY 2002
L88      166604 S (L87 OR SILICA OR SIO2 OR SILICON? OR SI) AND (TI OR TIO2 OR
L89      127322 S (?SILIC? OR ?SILAZAN? OR ?SILAN? OR ?SILOX?) AND (TI OR TIO2
L90         968 S L88,L89 AND L69-L72,L74,L75
L91         281 S L90 AND (L54 OR SILVER OR COPPER OR ZINC OR AG OR CU OR ZN)
L92          10 S L91 AND L52,L53
L93          14 S L91 AND (METHANOL OR ETHANOL OR PROPANOL OR BUTANOL OR MEOH O
L94           0 S L91 AND (METHYL OR ETHYL OR PR PROPYL OR ISOPROPYL OR BUTYL)(
L95          20 S L92,L93
L96          20 S L95 AND L1-L26,L55,L56,L58-L61,L64-L85,L88-L95
L97          38 S L86,L96
L98          38 S L97 AND (?SILIC? OR ?SILAN? OR ?SILAZ? OR ?SILOX? OR SI OR SI
L99          38 S L98 AND (?TITAN? OR TI OR TIO2)
L100         31 S L99 AND (DENTAL OR DENTIST? OR ORTHODONT? OR STOMATO? OR TOOT
L101          7 S L99 NOT L100
                SEL DN 6 7 8 9 16 L100
L102         26 S L100 NOT E1-E5
                SEL DN 1 5 9 10 13 25
L103          6 S L102 AND E6-E11
L104          8 S L78,L81,L103
L105          8 S L104 AND L1-L26,L55,L56,L58-L61,L64-L86,L88-L104
                SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 09:31:44 ON 01 MAY 2002
L106         15 S E12-E26

     FILE 'REGISTRY' ENTERED AT 09:32:16 ON 01 MAY 2002

=> d ide can tot l106

L106 ANSWER 1 OF 15  REGISTRY  COPYRIGHT 2002 ACS
RN   51745-87-0  REGISTRY
CN   Titanium oxide (9CI)  (CA INDEX NAME)
PR   13463-67-7
DR   158518-86-6, 52624-13-2
MF   O . Ti
CI   TIS
LC   STN Files:   ANABSTR, BIOTECHNO, CA, CAPLUS, CHEMLIS'
       IFIPAT, IFIUDB, TOXCENTER, USPATFULL, VTB
     Other Sources:   EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory
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These are the hit structures for refs 1-8, Set L105

Component	Ratio	Component Registry Number
O	x	17778-80-2
Ti	x	7440-32-6

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             945 REFERENCES IN FILE CA (1967 TO DATE)
              43 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             945 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE   1:  111:62793

REFERENCE   2:  110:239220

REFERENCE   3:  110:236139

REFERENCE   4:  110:218780

REFERENCE   5:  110:216246
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REFERENCE 6: 110:207850

REFERENCE 7: 110:203639

REFERENCE 8: 110:203611

REFERENCE 9: 110:199259

REFERENCE 10: 110:184406

L106 ANSWER 2 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **13463-67-7** REGISTRY
CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1385RN59
CN 234DA
CN 500HD
CN 63B1 White
CN A 100
CN A 160
CN A 200
CN A 200 (pigment)
CN A 330
CN A 330 (pigment)
CN A-Fil Cream
CN A-FN 3
CN Aerolyst 7710
CN Aerosil P 25
CN Aerosil P 25S6
CN Aerosil P 27
CN AF-E 3D
CN AK 15
CN AK 15 (pigment)
CN Amperit 780.0
CN AMT 100
CN AMT 600
CN AUF 0015S
CN Austiox R-CR 3
CN B 101
CN B 101 (pigment)
CN Bayer R-FD 1
CN Bayertitan A
CN Bayertitan AN 3
CN Bayertitan R-FD 1
CN Bayertitan R-FK 21
CN Bayertitan R-FK-D
CN Bayertitan R-KB 2
CN Bayertitan R-KB 3
CN Bayertitan R-KB 4
CN Bayertitan R-KB 5
CN Bayertitan R-KB 6
CN Bayertitan R-U 2
CN Bayertitan R-U-F
CN Bayertitan R-V-SE 20
CN Bayertitan T
CN Bistrater L-NSC 200C
CN BR 29-7-2
CN C 97
CN C 97 (oxide)
CN C.I. 77891
CN C.I. Pigment White 6
CN Cab-O-Ti

CN CG-T
CN CL 310
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
AR **51745-87-0**
DR 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1309-63-3, 1344-29-2, 55068-84-3, 55068-85-4, 62338-64-1, 101239-53-6, 98084-96-9, 37230-92-5, 37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7, 116788-85-3, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1, 195740-11-5, 221548-98-7, 224963-00-2, 246178-32-5, 252962-41-7
MF O2 Ti
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

O=Ti=O

98838 REFERENCES IN FILE CA (1967 TO DATE)
1420 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
99039 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288279

REFERENCE 2: 136:288071

REFERENCE 3: 136:288055

REFERENCE 4: 136:288035

REFERENCE 5: 136:288013

REFERENCE 6: 136:287873

REFERENCE 7: 136:287871

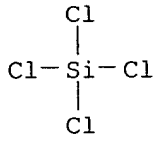
REFERENCE 8: 136:287822

REFERENCE 9: 136:287765

REFERENCE 10: 136:287748

L106 ANSWER 3 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **10026-04-7** REGISTRY
CN Silane, tetrachloro- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Silicon chloride (SiCl4) (8CI)
OTHER NAMES:
CN Perchlorosilane
CN Silicon chloride
CN Silicon tetrachloride
CN Tetrachlorosilane
CN Tetrachlorosilicon
FS 3D CONCORD

MF Cl4 Si
CI COM
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7303 REFERENCES IN FILE CA (1967 TO DATE)
241 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
7309 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288047

REFERENCE 2: 136:283589

REFERENCE 3: 136:283075

REFERENCE 4: 136:283008

REFERENCE 5: 136:281517

REFERENCE 6: 136:270761

REFERENCE 7: 136:270751

REFERENCE 8: 136:270500

REFERENCE 9: 136:270128

REFERENCE 10: 136:270117

L106 ANSWER 4 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **7732-18-5** REGISTRY
CN Water (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Distilled water
CN DRiWATER
CN Hydrogen oxide (H2O)
CN R 718
FS 3D CONCORD
MF H2 O
CI COM
LC STN Files: ANABSTR, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USAN, USPAT2, USPATFULL, VTB

(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

H_2O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

245726 REFERENCES IN FILE CA (1967 TO DATE)
867 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
246121 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288330

REFERENCE 2: 136:288329

REFERENCE 3: 136:288327

REFERENCE 4: 136:288326

REFERENCE 5: 136:288322

REFERENCE 6: 136:288320

REFERENCE 7: 136:288308

REFERENCE 8: 136:288299

REFERENCE 9: 136:288265

REFERENCE 10: 136:288262

L106 ANSWER 5 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **7631-86-9** REGISTRY
CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1165MP
CN 175GR
CN 300CF
CN 30R50
CN 30R7
CN 3K
CN 3KS
CN 400WQ
CN 5X
CN 937L
CN 940UP
CN 955W
CN 980H
CN A 175
CN A 200
CN A 300
CN A 380
CN Acematt HK 400
CN Acematt OK 607
CN Acticel
CN Adelite 20N
CN Adelite 30
CN Adelite A
CN Adelite AD 321

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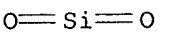
CN Adelite AT 40
CN Adelite AT 50
CN Adelite BT 55
CN Adelite BT 59
CN Adelite CT 100
CN Adelite CT 300
CN Admafine C 5
CN Admafine SD 25R
CN Admafine SE 5100
CN Admafine SO-C 1
CN Admafine SO-C 5
CN Admafine SO-E 1
CN Admafine SO-E 2
CN Admafine SO-E 5
CN Admatechs SO-E 2
CN Aerogel 200
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
FS 3D CONCORD
DR 11139-72-3, 11139-73-4, 12125-13-2, 12737-36-9, 12753-63-8, 12765-74-1, 12774-28-6, 9049-77-8, 1340-09-6, 172306-09-1, 173299-41-7, 127689-16-1, 127831-27-0, 126879-14-9, 126879-30-9, 126879-49-0, 53468-64-7, 125623-17-8, 56645-27-3, 56731-06-7, 122985-48-2, 55599-33-2, 60572-11-4, 62655-73-6, 97343-62-9, 97709-14-3, 98226-40-5, 98253-25-9, 67167-16-2, 113384-41-1, 50813-13-3, 50926-93-7, 50935-83-6, 51542-57-5, 51542-58-6, 61673-46-9, 108727-71-5, 136881-80-6, 37220-24-9, 37241-25-1, 37334-65-9, 37340-45-7, 37380-93-1, 139074-73-0, 137263-03-7, 145686-91-5, 145808-77-1, 70536-23-1, 70563-35-8, 78207-17-7, 146585-72-0, 152787-33-2, 155552-25-3, 155575-05-6, 83589-56-4, 83652-92-0, 149779-02-2, 87501-59-5, 89493-21-0, 39336-66-8, 39372-58-2, 39409-25-1, 39443-40-8, 39456-81-0, 52350-43-3, 179046-03-8, 179733-77-8, 185461-90-9, 188357-77-9, 191289-29-9, 206770-31-2, 207868-97-1, 217643-58-8, 264907-28-0, 330152-64-2, 341028-71-5, 368432-40-0
MF O2 Si
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PHARMASEARCH, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



234613 REFERENCES IN FILE CA (1967 TO DATE)
4651 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

235054 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288211

REFERENCE 2: 136:288209

REFERENCE 3: 136:288059

REFERENCE 4: 136:288058

REFERENCE 5: 136:288050

REFERENCE 6: 136:288046

REFERENCE 7: 136:288004

REFERENCE 8: 136:288000

REFERENCE 9: 136:287985

REFERENCE 10: 136:287876

L106 ANSWER 6 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **7440-66-6** REGISTRY
CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN AN 325
CN Asarco L 15
CN Blue powder
CN Ecka 4
CN F 1000
CN F 1000 (metal)
CN F 1500T
CN F 2000
CN F 2000 (metal)
CN LS 2
CN LS 2 (element)
CN LS 4
CN LS 5
CN LS 5 (metal)
CN NC-Zinc
CN Rheinzink
CN UF
CN UF (metal)
CN VM 4P16
CN Zinc Dust 3
DR 12793-53-2, 195161-85-4, 199281-21-5, 298688-49-0
MF Zn
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHARMASEARCH, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Zn

207205 REFERENCES IN FILE CA (1967 TO DATE)
11014 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
207491 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288297

REFERENCE 2: 136:288289

REFERENCE 3: 136:288287

REFERENCE 4: 136:288271

REFERENCE 5: 136:288257

REFERENCE 6: 136:288254

REFERENCE 7: 136:288215

REFERENCE 8: 136:288160

REFERENCE 9: 136:288158

REFERENCE 10: 136:288131

L106 ANSWER 7 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **7440-50-8** REGISTRY
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 100RXH
CN 1100T
CN 115A
CN 1721 Gold
CN 200RL
CN 22BB400
CN 2L3GT
CN 3EC
CN 3EC-HTE
CN 3EC-III
CN 3EC-VLP
CN 3EC3
CN 3L Fire
CN Allbri Natural Copper
CN Arwood copper
CN BHN 02T
CN BHY 02B-T
CN BHY 13T
CN BHY 22B-T
CN BPF 18
CN BSH
CN BSH (metal)
CN C 100
CN C 100 (metal)
CN C.I. 77400
CN C.I. Pigment Metal 2
CN CDX
CN CDX (metal)
CN CE 1100
CN CE 1110

CN CE 115
CN CE 15
CN CE 25
CN CE 7
CN CE 7 (metal)
CN CE 8A
CN CF 78
CN CF-T 8
CN Copper element
CN Copper fulleride (CuC20)
CN Copper Powder
CN CS-F 150E
CN CT 315E
CN CU 112
CN Cu-At-W-250
CN CU-FN 10
CN CuEP
CN CuEPP
CN CuLox 6010
CN CuLox 6030
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 133353-46-5, 133353-47-6, 65555-90-0, 72514-83-1, 195161-80-9
MF Cu
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Cu

356879 REFERENCES IN FILE CA (1967 TO DATE)
20252 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
357388 REFERENCES IN FILE CAPLUS (1967 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288297

REFERENCE 2: 136:288287

REFERENCE 3: 136:288286

REFERENCE 4: 136:288273

REFERENCE 5: 136:288264

REFERENCE 6: 136:288256

REFERENCE 7: 136:288254

REFERENCE 8: 136:288205

REFERENCE 9: 136:288193

REFERENCE 10: 136:288160

L106 ANSWER 8 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **7440-32-6** REGISTRY
CN Titanium (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Alpaste RTA 030
CN C.P. Titanium
CN Dentcraft Titan Ingot
CN EBT
CN EBT (metal)
CN Elgard 210
CN M 350
CN M 350 (metal)
CN N 233
CN Smelloff-Cutter Titanium
CN TC 459
CN TG-Tv
CN Timet 115
CN Titan 20A
CN Titanium element
CN Titanium fulleride (TiC20)
CN TP270H
CN TPS 350
CN TR 28C
CN TW 340
CN Ventron 00901
DR 53549-90-9, 54319-51-6, 57854-37-2, 62650-70-8, 67796-94-5, 182260-48-6, 195161-81-0
MF Ti
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Ti

113090 REFERENCES IN FILE CA (1967 TO DATE)
4844 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
113257 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288286

REFERENCE 2: 136:288269

REFERENCE 3: 136:288264

REFERENCE 4: 136:288259

REFERENCE 5: 136:288003

REFERENCE 6: 136:287970

REFERENCE 7: 136:287872

REFERENCE 8: 136:287837

REFERENCE 9: 136:287820

REFERENCE 10: 136:287778

L106 ANSWER 9 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **7440-22-4** REGISTRY
CN Silver (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1520D
CN 15ED001
CN 15ED173
CN 3200HD
CN Ag 3010
CN Ag-C-GS
CN AG-CO
CN Ag-E 350
CN AgC 239
CN AgC-A
CN AGF 20S
CN Algaedyn
CN Argentum
CN Astroflake 5
CN AX 10C
CN AY 6010
CN AY 6080
CN C 200
CN C 200 (metal)
CN C.I. 77820
CN Carey Lea silver
CN Colloidal silver
CN D 25
CN D 25 (metal)
CN Degussa 67
CN Degussa 80
CN Dotite XA 208
CN E 20
CN EA 0008
CN EA 295
CN ED 6036
CN EGED
CN EPC 100
CN Epinall
CN ESL 9912A
CN F 201
CN FA 2
CN FA 2 (metal)
CN FA 312
CN G 12
CN G 12 (metal)
CN G 13
CN G 13 (metal)
CN HCF 38
CN Jelcon SH 1
CN KS
CN KS (metal)
CN L 3
CN L 3 (element)
CN LA 113
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 87354-45-8, 87370-84-1

MF Ag
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Ag

115516 REFERENCES IN FILE CA (1967 TO DATE)
3943 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
115724 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288307

REFERENCE 2: 136:288264

REFERENCE 3: 136:288211

REFERENCE 4: 136:288025

REFERENCE 5: 136:287986

REFERENCE 6: 136:287985

REFERENCE 7: 136:287984

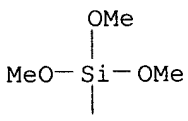
REFERENCE 8: 136:287951

REFERENCE 9: 136:287906

REFERENCE 10: 136:287876

L106 ANSWER 10 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **681-84-5** REGISTRY
CN Silicic acid (H4SiO4), tetramethyl ester (8CI, 9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Methyl silicate ((MeO)4Si) (6CI)
OTHER NAMES:
CN CLG 520
CN KBM 04
CN LS 540
CN Methyl orthosilicate
CN Methyl silicate
CN Methyl silicate ((CH3)4SiO4)
CN Methyl Silicate 28
CN Methyl Silicate 39
CN MSP 150
CN Silane, tetramethoxy-
CN Silicon methoxide (Si(OMe)4)
CN Silicon tetramethoxide
CN SIT 7510.0
CN T 1980
CN Tetramethoxysilane
CN Tetramethyl orthosilicate
CN Tetramethyl silicate

CN TMOS
CN TSL 8114
FS 3D CONCORD
DR 12547-31-8
MF C4 H12 O4 Si
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3374 REFERENCES IN FILE CA (1967 TO DATE)
253 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3383 REFERENCES IN FILE CAPLUS (1967 TO DATE)
98 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:284367

REFERENCE 2: 136:283091

REFERENCE 3: 136:264567

REFERENCE 4: 136:259207

REFERENCE 5: 136:258892

REFERENCE 6: 136:256453

REFERENCE 7: 136:256451

REFERENCE 8: 136:253066

REFERENCE 9: 136:253065

REFERENCE 10: 136:253064

L106 ANSWER 11 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **141-78-6** REGISTRY
CN Acetic acid ethyl ester (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Acetic acid, ethyl ester
CN Acetic ether
CN Acetidin
CN Acetoxyethane
CN Ethyl acetate
CN Ethyl ethanoate
CN EtOAc
CN Vinegar naphtha

FS 3D CONCORD
MF C4 H8 O2
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Et—O—Ac

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

18197 REFERENCES IN FILE CA (1967 TO DATE)
101 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
18234 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:288309

REFERENCE 2: 136:285076

REFERENCE 3: 136:284463

REFERENCE 4: 136:284376

REFERENCE 5: 136:283990

REFERENCE 6: 136:283588

REFERENCE 7: 136:283501

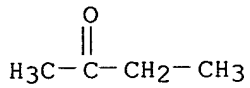
REFERENCE 8: 136:283494

REFERENCE 9: 136:283447

REFERENCE 10: 136:283339

L106 ANSWER 12 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **78-93-3** REGISTRY
CN 2-Butanone (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 3-Butanone
CN Butanone
CN Ethyl methyl ketone
CN MEK
CN Methyl ethyl ketone
FS 3D CONCORD
DR 135311-02-3
MF C4 H8 O
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,

MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

17265 REFERENCES IN FILE CA (1967 TO DATE)
156 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
17293 REFERENCES IN FILE CAPLUS (1967 TO DATE)
10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288322

REFERENCE 2: 136:288309

REFERENCE 3: 136:286377

REFERENCE 4: 136:285771

REFERENCE 5: 136:285076

REFERENCE 6: 136:284845

REFERENCE 7: 136:284833

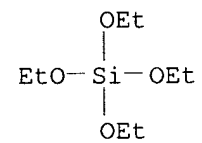
REFERENCE 8: 136:284520

REFERENCE 9: 136:284502

REFERENCE 10: 136:284413

L106 ANSWER 13 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **78-10-4** REGISTRY
CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Ethyl silicate ((EtO)4Si) (6CI)
OTHER NAMES:
CN Colcoat 6P
CN Conservare OH
CN Dynasil A
CN ES 100
CN ES 100 (silicate)
CN ES 140
CN ES 28
CN ES 28 (ester)
CN ES 45
CN Ethyl orthosilicate
CN Ethyl silicate 28
CN Ethyl Silicate 45
CN KBE 04
CN LS 2340
CN LS 2430
CN SI 42
CN Silane, tetraethoxy-

CN Silicon ethoxide
CN Silicon ethoxide (Si(OEt)4)
CN Silicon tetraethoxide
CN Silicon tetraethoxide (Si(OC2H5)4)
CN Silicon tetraethoxide (Si(OEt)4)
CN Silikan L
CN Steinfestiger OH
CN T 1807
CN TEOS
CN TES 28
CN Tetraethoxysilane
CN Tetraethoxysilicon
CN Tetraethoxysilicon(IV)
CN Tetraethyl orthosilicate
CN Tetraethyl silicate
CN TSL 8124
FS 3D CONCORD
MF C8 H20 O4 Si
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

13113 REFERENCES IN FILE CA (1967 TO DATE)
949 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
13145 REFERENCES IN FILE CAPLUS (1967 TO DATE)
216 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288306

REFERENCE 2: 136:288211

REFERENCE 3: 136:288047

REFERENCE 4: 136:287834

REFERENCE 5: 136:287763

REFERENCE 6: 136:287693

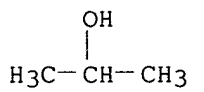
REFERENCE 7: 136:287681

REFERENCE 8: 136:287679

REFERENCE 9: 136:287654

REFERENCE 10: 136:287564

L106 ANSWER 14 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **67-63-0** REGISTRY
CN 2-Propanol (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Isopropyl alcohol (8CI)
OTHER NAMES:
CN 1-Methylethanol
CN 1-Methylethyl alcohol
CN 2-Hydroxypropane
CN 2-Propyl alcohol
CN Alcojel
CN Alcosolve 2
CN Autosept
CN Avantin
CN Avantine
CN Combi-Schutz
CN Dimethylcarbinol
CN Hartosol
CN Imsol A
CN IPA
CN IPS 1
CN IPS 1 (alcohol)
CN iso-Propanol
CN iso-Propyl alcohol
CN Isohol
CN Isopropanol
CN Lutosol
CN n-Propan-2-ol
CN Petrohol
CN PRO
CN Propol
CN sec-Propanol
CN sec-Propyl alcohol
CN Sterisol Hand Disinfectant
CN Takineocol
CN Virahol
FS 3D CONCORD
DR 8013-70-5
MF C3 H8 O
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

36659 REFERENCES IN FILE CA (1967 TO DATE)

572 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
36724 REFERENCES IN FILE CAPLUS (1967 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288327

REFERENCE 2: 136:288322

REFERENCE 3: 136:288314

REFERENCE 4: 136:288312

REFERENCE 5: 136:288309

REFERENCE 6: 136:288308

REFERENCE 7: 136:287175

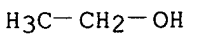
REFERENCE 8: 136:287116

REFERENCE 9: 136:286793

REFERENCE 10: 136:286716

L106 ANSWER 15 OF 15 REGISTRY COPYRIGHT 2002 ACS
RN **64-17-5** REGISTRY
CN Ethanol (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Ethyl alcohol (6CI, 7CI, 8CI)
OTHER NAMES:
CN 100C.NPA
CN Alcare Hand Degermer
CN Alcohol
CN Alcohol anhydrous
CN Algrain
CN Anhydrol
CN Anhydrol PM 4085
CN Desinfektol EL
CN Duplicating Fluid 100C.NPA
CN Esumiru WK 88
CN Ethicap
CN Ethyl hydrate
CN Ethyl hydroxide
CN Hinetoless
CN IMS 99
CN Jaysol
CN Jaysol S
CN Methylcarbinol
CN Molasses alcohol
CN Potato alcohol
CN SDA 3A
CN SDA 40-2
CN SY Fresh M
CN Synasol
CN Tecsol
CN Tecsol C
FS 3D CONCORD
DR 8000-16-6, 8024-45-1, 121182-78-3
MF C2 H6 O
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU,

DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

130513 REFERENCES IN FILE CA (1967 TO DATE)
1060 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
130732 REFERENCES IN FILE CAPLUS (1967 TO DATE)
11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288328

REFERENCE 2: 136:288326

REFERENCE 3: 136:288314

REFERENCE 4: 136:288241

REFERENCE 5: 136:287983

REFERENCE 6: 136:287751

REFERENCE 7: 136:287599

REFERENCE 8: 136:287462

REFERENCE 9: 136:287451

REFERENCE 10: 136:287374

=> fil hcaplus
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FILE COVERS 1907 - 1 May 2002 VOL 136 ISS 18
FILE LAST UPDATED: 29 Apr 2002 (20020429/ED)

This file contains CAS Registry Numbers for easy and accurate

substance identification.

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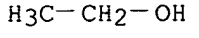
=> d all hitstr tot l105

L105 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2002 ACS
AN 2001:760049 HCAPLUS
DN **135:322763**
TI Spherical oxidic particles, process for their preparation and their use
IN Gellermann, Carsten; Wolter, Herbert
PA Fraunhofer-Gesellschaft Zur Foerderung Der Angewandten Forschung E.V., Germany
SO Eur. Pat. Appl., 20 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C08K003-22
ICS C01G057-00; A61K006-00
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 49
FAN.CNT 1

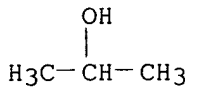
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1146072	A1	20011017	EP 2001-109140	20010412
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 10018405	A1	20011025	DE 2000-10018405	20000413
PRAI	DE 2000-10018405	A	20000413		

AB The spherical oxide particles have a particle size of 5-10,,000 nm, contain 0.1-99.9 wt.%, preferably 60-95 wt.% , of an oxide of **Ti** , Zr, Al, Y, and/or **Si** and at least one lanthanide oxide. The particles are suitable for radio-opaque **dental** fillings, as radio-opaque carriers for medical uses, as contrast media, as catalyst, as NMR and tracer reagent, and for use in optical, elec., or electrooptical applications.
ST **dental** filling oxide particle manuf
IT **Dental materials and appliances**
(fillings; spherical oxidic particles, process for their prepn. and their use)
IT Rare earth oxides
RL: TEM (Technical or engineered material use); USES (Uses)
(spherical oxidic particles, process for their prepn. and their use)
IT **64-17-5, Ethanol**, reactions **67-63-0**, Isopropanol, reactions **681-84-5, Tetramethoxysilane** 1336-21-6, Ammonium hydroxide 2530-85-0 32718-54-0, Methoxyethanol 142002-57-1 367509-45-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(spherical oxidic particles, process for their prepn. and their use)
IT 1314-23-4, Zirconium oxide, uses 1314-36-9, Yttrium oxide, uses 1344-28-1, Aluminum oxide, uses 7440-00-8, Neodymium, uses 7440-52-0, Erbium, uses **7631-86-9, Silicon** oxide, uses **13463-67-7, Titanium** oxide, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(spherical oxidic particles, process for their prepn. and their use)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Kulzer & Co Gmbh; DE 3421157 A 1985 HCAPLUS
(2) Kulzer & Co Gmbh; WO 8600021 A 1986 HCAPLUS
(3) Rauter Vita Zahnfabrik; EP 0747034 A 1996 HCAPLUS

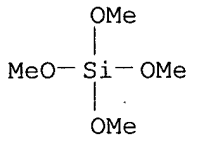
IT **64-17-5, Ethanol**, reactions **67-63-0**, Isopropanol, reactions **681-84-5, Tetramethoxysilane**
RL: RCT (Reactant); RACT (Reactant or reagent)
(spherical oxidic particles, process for their prepn. and their use)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)



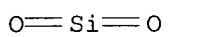
RN 67-63-0 HCAPLUS
CN 2-Propanol (9CI) (CA INDEX NAME)



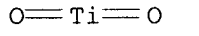
RN 681-84-5 HCAPLUS
CN Silicic acid (H4SiO4), tetramethyl ester (8CI, 9CI) (CA INDEX NAME)



IT **7631-86-9, Silicon** oxide, uses **13463-67-7**, **Titanium** oxide, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(spherical oxidic particles, process for their prepn. and their use)
RN 7631-86-9 HCAPLUS
CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)



L105 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2002 ACS
AN 2001:416478 HCAPLUS
DN 135:10112
TI Buccal and **dental** care composition containing **titanium** oxide and **tetralkoxysilane**
IN **Masuhara, Eiichi; Kadoma, Yoshinori; Yamauchi, Junichi; Okada, Koichi; Yamaguchi, Satoshi**
PA **Kuraray** Co., Ltd., Japan
SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K006-02

ICS A61K006-083
CC 63-8 (Pharmaceuticals)
Section cross-reference(s): 62
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1104669	A1	20010606	EP 2000-125309	20001128 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001220309	A2	20010814	JP 2000-349422	20001116 <--
US 2001002994	A1	20010607	US 2000-728121	20001204 <--

PRAI JP 1999-344938 A 19991203 <--

AB Provided are a **dental** and oral compn. capable of inhibiting **dental** plaque deposition and decompg. **dental** plaque to thereby prevent and cure **dental** diseases and oral diseases such as **dental** caries, **gingivitis**, **periodontitis** and other **periodontal** diseases (pyorrhea alveolaris, etc.), stomatitis, etc., and effective for preventing discoloration of **teeth** and **dental** materials and for preventing and removing halitosis, and a method of using the compn. for **dental** and oral care. The **dental** and oral compn. contains a photocatalytic **titanium** oxide or its precursor; at least one selected from **silicon** compds. such as **tetraalkoxysilanes**, **silicone** resins and their precursors and **silica**; and a liq. medium; or it contains a photocatalytic **titanium** oxide or its precursor and a liq. medium. The method for oral and **dental** care comprises applying the compn. to **teeth**, gums, oral mucous membranes or **dental** materials in the **mouth**, or applying the compn. to **dental** materials not in the **mouth**, to thereby fix photocatalytic **titanium** oxide on them or form a photocatalytic **titanium** oxide-contg. film on them. A compn. contained **titanium** oxide, **tetraethoxysilane** and **water**.

ST buccal **dental** care compn **titania silane**

IT **Dental materials and appliances**
(buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

IT **Mouth**
Periodontium
Tooth
(disease; buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

IT Drug delivery systems
(oral; buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

IT **64-17-5**, **Ethanol**, biological studies **78-10-4**, **Tetraethoxysilane** **7440-22-4**, **Silver**, biological studies **7440-50-8**, **Copper**, biological studies **7440-66-6**, **Zinc**, biological studies **7732-18-5**, **Water**, biological studies
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

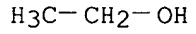
IT **13463-67-7**, **Titania**, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Advance Co Ltd; JP 09175923 A 1997 HCAPLUS
(2) Agency Of Ind Science &Amp; JP 11021127 A 1999 HCAPLUS

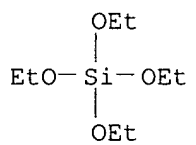
(3) Anon; PATENT ABSTRACTS OF JAPAN 1997, V1997(11)
(4) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(01)
(5) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(10)
(6) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(04)
(7) Boots Co Plc; WO 9324103 A 1993 HCAPLUS
(8) Kuraray Co Ltd; JP 10273412 A 1998 HCAPLUS
(9) Osada Res Inst Ltd; JP 11137573 A 1999
(10) Toto Ltd; JP 10195382 A 1998 HCAPLUS

IT **64-17-5, Ethanol**, biological studies **78-10-4, Tetraethoxysilane 7440-22-4, Silver**, biological studies **7440-50-8, Copper**, biological studies **7440-66-6, Zinc**, biological studies **7732-18-5, Water**, biological studies
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)

RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)



RN 78-10-4 HCAPLUS
CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 7440-22-4 HCAPLUS
CN Silver (8CI, 9CI) (CA INDEX NAME)

Ag

RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

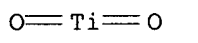
RN 7440-66-6 HCAPLUS
CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

RN 7732-18-5 HCAPLUS
CN Water (8CI, 9CI) (CA INDEX NAME)

H_2O

IT **13463-67-7, Titania**, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(buccal and **dental** care compn. contg. **titanium** oxide and **tetralkoxysilane**)
RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)



L105 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2002 ACS
AN 2001:31291 HCAPLUS
DN **134:90934**
TI Compositions comprising **organosiloxane** resins for delivering oral care substances
IN Yue, Jiang; Crisanti, Mark Matthew; Majeti, Satyanarayana; Burgess, Steven Carl; Reno, Elizabeth Ann; Li, Li; Mitra, Sekhar
PA The Procter & Gamble Company, USA
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K007-16
CC 62-7 (Essential Oils and Cosmetics)
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001001939	A1	20010111	WO 2000-US15890	20000609
	W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1196135	A1	20020417	EP 2000-941305	20000609
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	WO 2001001941	A1	20010111	WO 2000-US18187	20000630
	W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	WO 2001001958	A1	20010111	WO 2000-US18188	20000630
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

WO 2001001942 A1 20010111 WO 2000-US18189 20000630
W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1196137 A1 20020417 EP 2000-945085 20000630
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
PRAI WO 1999-US15130 A 19990702
WO 1999-US15131 A 19990702
WO 2000-US15890 W 20000609
WO 2000-US15891 A 20000609
WO 2000-US18189 W 20000630

AB Disclosed is a compn. for delivering an oral care substance to the oral cavity, comprising: (a) an **organosiloxane** resin; (b) a volatile carrier capable of solubilizing the **organosiloxane** resin; (c) a rheol. modifier; and (d) at least one oral care substance. The present invention is also directed to such compns. comprising: (a) an **organosiloxane** resin; (b) a fluid **diorganopolysiloxane** polymer; (c) a volatile carrier capable of solubilizing the **organosiloxane** resin and the fluid **diorganopolysiloxane** polymer; (d) a rheol. modifier; and (e) at least one oral care substance. Further disclosed is a method of using these compns. A hydrophobic oral care compn. contained **organosiloxane** resin (MQ resin) 25, **silicone** gum (dimethicone gum) 12.5, oral care substance 17, volatile carrier (isododecane) 44.5, and bentone clay (Bentone 27) 1%.

ST oral care **organosiloxane** resin dentifrice

IT Antihistamines
(H2; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT **Tooth**
(color; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Analgesics
Antimicrobial agents
Antioxidants
Antiviral agents
Chelating agents
Dentifrices
Flavoring materials
Pigments, nonbiological
Surfactants
Sweetening agents
(compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Acrylic polymers, biological studies
Clays, biological studies
Hydrocarbon oils
Mica-group minerals, biological studies
Peroxides, biological studies
Peroxy acids
Peroxysulfates
Siloxanes (nonpolymeric)
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(compns. comprising **organosiloxane** resins for delivering oral care substances)

IT **Tooth**

(enamel; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Chlorites
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(metal salts; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Group IIIA element compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(perborates; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Silk
(powders; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Polyamide fibers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(powders; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT Mica-group minerals, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**titanium**; compns. comprising **organosiloxane** resins for delivering oral care substances)

IT **64-17-5**, Hydrocarbon oils, biological studies **78-93-3**, Hydrocarbon oils, biological studies 87-99-0, Xylitol 109-60-4, Propyl acetate **141-78-6**, Ethyl acetate, biological studies 471-34-1, Calcium carbonate, biological studies 546-93-0, Magnesium carbonate 563-69-9, Carbonoperoxoic acid 1309-37-1, Red iron oxide, biological studies 1314-13-2, **Zinc** oxide, biological studies 1327-43-1, Aluminum magnesium **silicate** 1332-37-2, Iron oxide, biological studies 1343-88-0, Magnesium **silicate 7631-86-9**, **Silica**, biological studies 7787-59-9, Bismuth oxychloride 9002-88-4, Polyethylene 9004-34-6, Crystalline cellulose, biological studies 9005-25-8, Starch, biological studies 9006-65-9, Dimethicone 9016-00-6, **Dimethylpolysiloxane** 9016-00-6D, **Polydimethylsiloxane**, polyalkylene oxide-modified 12227-89-3, Black iron oxide 12691-60-0, (Bentone 27) **13463-67-7**, **Titanium** dioxide, biological studies 14807-96-6, Talc, biological studies 16984-48-8, Fluoride ion, biological studies 31807-55-3, (Isododecane) 31900-57-9, **Polydimethylsiloxane** 31900-57-9D, **Polydimethylsiloxane**, polyalkylene oxide-modified 51274-00-1, Yellow iron oxide 56091-38-4, Bentone gel ipm 57455-37-5, Ultramarine 163702-07-6, Methyl nonafluorobutyl ether 163702-08-7, Methyl nonafluoroisobutyl ether 219484-64-7, Hfe 7100
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(compns. comprising **organosiloxane** resins for delivering oral care substances)

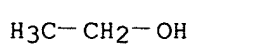
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

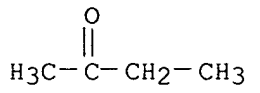
(1) Hill, I; US 5651959 A 1997 HCAPLUS
(2) Kedrowski, B; US 5866630 A 1999 HCAPLUS
(3) Viccaro, J; US 5427770 A 1995 HCAPLUS

IT **64-17-5**, Hydrocarbon oils, biological studies **78-93-3**, Hydrocarbon oils, biological studies **141-78-6**, Ethyl acetate, biological studies **7631-86-9**, **Silica**, biological studies **13463-67-7**, **Titanium** dioxide, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(compns. comprising **organosiloxane** resins for delivering oral

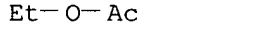
care substances)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)



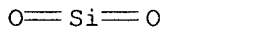
RN 78-93-3 HCAPLUS
CN 2-Butanone (8CI, 9CI) (CA INDEX NAME)



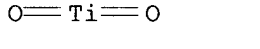
RN 141-78-6 HCAPLUS
CN Acetic acid ethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 7631-86-9 HCAPLUS
CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)



L105 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2002 ACS
AN 1993:154648 HCAPLUS
DN **118:154648**
TI Sol-gel composition containing hydrolyzable **silicic** ester for producing glassy **dental** coatings
IN Patel, Bipin Chandra Muljibhai
PA British Technology Group Ltd., UK
SO Brit. UK Pat. Appl., 29 pp.
CODEN: BAXXDU
DT Patent
LA English
IC ICM C23C018-12
ICS A61K006-027
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2257439	A1	19930113	GB 1992-14549	19920708
	GB 2257439	B2	19950104		
	WO 9300878	A1	19930121	WO 1992-GB1235	19920708
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	EP 595844	A1	19940511	EP 1992-914267	19920708
	EP 595844	B1	19970305		

R: CH, DE, ES, FR, GB, IT, LI, NL, SE

	JP 06509088	T2	19941013	JP 1992-502100	19920708
	US 5433956	A	19950718	US 1993-142487	19931129
PRAI	GB 1991-15154		19910712		
	WO 1992-GB1235		19920708		

AB Glassy coatings are made by curing in situ a coating of a sol gel, xerogel or heat-consolidated gel compn. comprising a hydrolyzable **silicic** ester, 1-4 mol **water** per mol of **Si** and a solvent e.g. **alc.**, filled with a filler such as kaolinite or with flat plates of mica, which may be coated with **TiO2**, Cr2O3 or Fe2O3. The **silicic** ester may be **Si** tetrahalide or **tetraalkoxysilicon**. Further fillers are laponite, zeolite, talc, and vermiculite. The mica or talc may be coated with **silane**. The compn. may also contain a metal alkoxide capable of participating in forming glass structures with the **silicic** ester, e.g. alkoxides of Na, Zr, Al and **Ti**. The compn. may be cured to form the glassy coating by the use of laser radiation or a butane gas flame. Part of the **silicic** ester may be replaced with other glass formers such as B-based sol gels. The coating may be applied to **teeth** as a **dental** fissure sealant or varnish to protect restorations, or as an inherently colored cosmetic coating, or as a prophylactic coating. In an application for slow drug release the coating may be charged with a drug, e.g. for treating dentin hypersensitivity or **periodontal** disease. A mixt. of (EtO)4Si 99.62, (sec-BuO)4Zr 13.79, (sec-BuO)3Al 19.89, and EtONa 9.3 g, made under dry N, was exposed to atm. moisture, to give a sol-gel, which turned into a glassy xerogel, for **dental** use.

ST sol gel **dental** glass coating

IT Mica-group minerals, biological studies
Zeolites, biological studies
RL: BIOL (Biological study)
(fillers, in sol-gel compns., for glassy **dental** coatings)

IT **Alcohols**, compounds
RL: BIOL (Biological study)
(Group IVB element salts, sol-gel compns. contg., for glassy **dental** coatings)

IT **Alcohols**, compounds
RL: BIOL (Biological study)
(Group VB element salts, sol-gel compns. contg., for glassy **dental** coatings)

IT Group IVB element compounds
Group VB element compounds
RL: BIOL (Biological study)
(**alcoholates**, sol-gel compns. contg., for glassy **dental** coatings)

IT **Alcohols**, compounds
RL: BIOL (Biological study)
(alkali metal salts, sol-gel compns. contg., for glassy **dental** coatings)

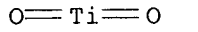
IT **Dental materials and appliances**
(glasses, coatings, sol-gel compns. for)

IT **Dental materials and appliances**
(sealants, sol-gel compns. for)

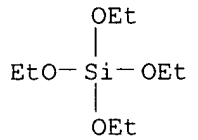
IT 1308-38-9, Chromium oxide, biological studies 1309-37-1, Ferric oxide, biological studies 7803-62-5, **Silane**, biological studies **13463-67-7**, **Titanium** dioxide, biological studies
RL: BIOL (Biological study)
(coating, on fillers, in sol-gel compns., for glassy **dental** coatings)

IT 1318-00-9, Vermiculite 1318-74-7, Kaolinite, biological studies 14807-96-6, Talc, biological studies 53320-86-8, Laponite
RL: BIOL (Biological study)
(filler, in sol-gel compns., for glassy **dental** coatings)

IT **78-10-4, Tetraethoxysilicon** 141-52-6, Sodium ethoxide
546-68-9, **Titanium** tetra-isopropoxide 1343-98-2D,
Silicic acid, esters 2269-22-9, Aluminum tri-sec-butoxide
7429-90-5D, Aluminum, alkoxides 7440-23-5D, Sodium, alkoxides
7440-32-6D, Titanium, alkoxides 7440-67-7D, Zirconium,
alkoxides 125211-18-9, Zirconium tetra-sec-butoxide
RL: BIOL (Biological study)
(sol-gel compns. contg., for glassy **dental** coatings)
IT **13463-67-7, Titanium** dioxide, biological studies
RL: BIOL (Biological study)
(coating, on fillers, in sol-gel compns., for glassy **dental**
coatings)
RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)



IT **78-10-4, Tetraethoxysilicon 7440-32-6D,**
Titanium, alkoxides
RL: BIOL (Biological study)
(sol-gel compns. contg., for glassy **dental** coatings)
RN 78-10-4 HCAPLUS
CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 7440-32-6 HCAPLUS
CN Titanium (8CI, 9CI) (CA INDEX NAME)

L105 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2002 ACS
AN 1993:154647 HCAPLUS
DN **118:154647**
TI Sol-gel composition containing hydrolyzable **silicic** ester for
producing glassy coatings for **dental** use
IN Patel, Bipin Chandra Muljibhai
PA British Technology Group Ltd., UK
SO Brit. UK Pat. Appl., 33 pp.
CODEN: BAXXDU
DT Patent
LA English
IC ICM C23C018-12
ICS A61K006-027
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2257438	A1	19930113	GB 1992-14548	19920708
	GB 2257438	B2	19950104		
	WO 9300879	A1	19930121	WO 1992-GB1236	19920708
	W: JP, US				

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE
EP 595840 A1 19940511 EP 1992-914109 19920708
EP 595840 B1 19960612
R: CH, DE, ES, FR, GB, IT, LI, NL, SE
JP 06509089 T2 19941013 JP 1992-502101 19920708
ES 2090661 T3 19961016 ES 1992-914109 19920708
US 5433941 A 19950718 US 1993-142486 19931129
PRAI GB 1991-15153 19910712
WO 1992-GB1236 19920708

AB Glassy coatings are made by curing in situ a sol gel, xerogel or heat-consolidated gel compn. comprising a hydrolyzable **silicic** ester, a solvent, and alkoxides of a Group IA metal, preferably a combination of Al, Zr, and Na, or a combination of Zr and Na. The compn. may also contain a filler, e.g. talc, mica, laponite, zeolite, kaolinite or vermiculite, which may be coated with **TiO2**, Cr2O3 or Fe2O3. The solvent may be a ketone or **alc**. The compn. may be cured to form the glassy coating by the use of laser radiation or a butane gas flame. The coating may be applied to **teeth** as a **dental** fissure sealant or varnish to protect restorations, or (if filled) as an inherently colored cosmetic coating, or as a prophylactic coating.

ST sol gel **silicate dental** coating

IT Mica-group minerals, uses
Zeolites, uses
RL: USES (Uses)
(**dental** filler contg.)

IT **Dental materials and appliances**
(glasses, coatings, sol-gel compns. for)

IT **Alcohols**, compounds
RL: BIOL (Biological study)
(metal salts, sol-gels contg., for **dental** coatings and sealants)

IT **Dental materials and appliances**
(sealants, sol-gel compns. for)

IT 1309-37-1, Ferric oxide, biological studies 11118-57-3, Chromium oxide **13463-67-7**, **Titanium** dioxide, biological studies
RL: BIOL (Biological study)
(coating, on fillers, in sol-gel compns., for **dental** coatings)

IT 1318-00-9, Vermiculite 1318-74-7, Kaolinite, biological studies 14807-96-6, Talc, biological studies 53320-86-8, Laponite
RL: BIOL (Biological study)
(filler, in sol-gel compns., for **dental** coatings)

IT **78-10-4** 141-52-6, Ethoxy sodium 546-68-9, **Titanium** tetraisopropoxide 2269-22-9, Tri-sec-butoxy aluminum 3374-12-7, Tetra-sec-butoxy **titanium** 125211-18-9, Zirconium tetra-sec-butoxide
RL: BIOL (Biological study)
(sol-gel compn. contg., for **dental** coatings)

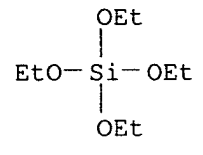
IT 1343-98-2D, **Silicic** acid, esters, hydrolysable 7429-90-5D, Aluminum, alkoxides 7440-23-5D, Sodium, alkoxides **7440-32-6D**, **Titanium**, alkoxides 7440-67-7D, Zirconium, alkoxides
RL: BIOL (Biological study)
(sol-gels contg., for **dental** coatings and sealants)

IT **13463-67-7**, **Titanium** dioxide, biological studies
RL: BIOL (Biological study)
(coating, on fillers, in sol-gel compns., for **dental** coatings)

RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)

O═Ti═O

IT **78-10-4**
RL: BIOL (Biological study)
(sol-gel compn. contg., for **dental** coatings)
RN 78-10-4 HCAPLUS
CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



IT **7440-32-6D, Titanium**, alkoxides
RL: BIOL (Biological study)
(sol-gels contg., for **dental** coatings and sealants)
RN 7440-32-6 HCAPLUS
CN Titanium (8CI, 9CI) (CA INDEX NAME)

L105 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2002 ACS
AN 1992:158989 HCAPLUS
DN 116:158989
TI Coated cement powder for **dental** and medical uses
IN Fuchigami, Kiyomi; Morino, Yoshihiro
PA Matsukaze K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K006-06
ICS A61L025-00; C04B012-02; C04B028-34
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

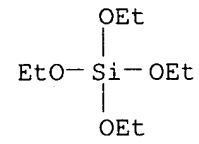
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 03284606	A2	19911216	JP 1990-85440	19900330
JP 2935725	B2	19990816		

AB A cement powder, esp. **Zn** phosphate cement, carboxylate cement, and glass ionomer cement, is coated with an oxide selected from oxides of Al, **Si**, **Ti**, Zr, Sn, B, and **Zn**. The coated cement is suitable for bonding bone structure, in an adequate hardening time. The cement powder may be coated with an alk. earth metal oxide prior to the metal oxide application. Thus, a com. glass ionomer cement (30g) and 200 mL **water** were mixed, heated to 80.degree., and to this was added dropwise an **EtOH** soln. (50 mL) contg. 0.9g **tetraethoxysilane**. The suspension was refluxed 6 h, and the powder was isolated, dried, and pulverized to give a cement.
ST bone cement metal oxide coating
IT Alkaline earth metals
Oxides, biological studies
RL: BIOL (Biological study)
(bone cement powder coating with)
IT **Medical goods**
(bone cements, metal oxide coating in)
IT **Dental materials and appliances**
(cements, powder coating with metal oxides for)

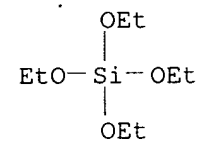
IT **78-10-4, Tetraethoxysilane 78-10-4D,**
Tetraethoxysilane, hydrolyzates, mixt. with
tetrabutoxysilane 1303-86-2, Boron oxide, biological studies
1314-13-2, **Zinc** oxide, biological studies 1314-23-4, Zirconia,
biological studies 1332-29-2, Tin oxide 1344-28-1, Aluminum oxide,
biological studies 7550-45-0, **Titanium** tetrachloride,
biological studies **7631-86-9, Silica,** biological
studies **10026-04-7, Silicon** tetrachloride
13463-67-7, Titania, biological studies
RL: BIOL (Biological study)
(bone cement powder coating with)

IT **78-10-4, Tetraethoxysilane 78-10-4D,**
Tetraethoxysilane, hydrolyzates, mixt. with
tetrabutoxysilane 7631-86-9, Silica,
biological studies **10026-04-7, Silicon** tetrachloride
13463-67-7, Titania, biological studies
RL: BIOL (Biological study)
(bone cement powder coating with)

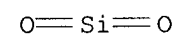
RN 78-10-4 HCAPLUS
CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



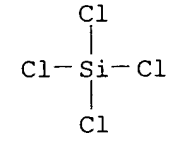
RN 78-10-4 HCAPLUS
CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 7631-86-9 HCAPLUS
CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 10026-04-7 HCAPLUS
CN Silane, tetrachloro- (9CI) (CA INDEX NAME)



RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)

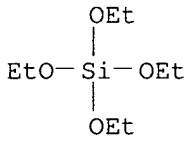
O=Ti=O

L105 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2002 ACS
AN 1991:415648 HCAPLUS
DN **115:15648**
TI Methacrylate polymer **dental** materials containing **siloxane-titanoxane** fillers
IN Panster, Peter; Janda, Ralf; Kleinschmit, Peter
PA Degussa A.-G., Fed. Rep. Ger.
SO Ger. Offen., 15 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM A61K006-08
ICS C08F002-44; C08L083-04; C08L085-00; C08G077-22; C08G077-42; C08G079-00; A61C005-00; A61C013-00
ICA C07F007-04; C07F007-28; C07F007-18; C08F002-48; C08L083-10
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3913250	A1	19901025	DE 1989-3913250	19890422
	DE 3913250	C2	19930218		
	EP 394797	A2	19901031	EP 1990-107180	19900414
	EP 394797	A3	19910717		
	EP 394797	B1	19930602		
	EP 394797	B2	19980107		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL				
	AT 89996	E	19930615	AT 1990-107180	19900414
	CA 2015083	AA	19901022	CA 1990-2015083	19900420
	US 5132337	A	19920721	US 1990-513281	19900420
	JP 02295911	A2	19901206	JP 1990-105504	19900423
	US 5248706	A	19930928	US 1992-885550	19920519
PRAI	DE 1989-3913250		19890422		
	EP 1990-107180		19900414		
	US 1990-513281		19900420		

AB A paste which can be hardened into a highly-polishable **dental** material by an initiator, comprises a polymerizable methacrylate and a finely-dispersed **siloxane-titanoxane** filler. Refluxing 1404.2 g **Si**(OEt)4 and 95.7 g (iso-PrO)4Ti in NH3-contg. **EtOH** gave a product which was autoclaved with NH3, to give **TiO2**.20SiO2. This was ground and **silanated** with 3-**methacryloyloxypropyltrimethoxysilane**. A paste was made of this material 61.0, 2,2-bis[p-(.gamma.-methacryloyloxy-.beta.-hydroxypropoxy)phenyl]propane 26.4, triethyleneglycol dimethacrylate 11.6, camphorquinone 0.2, and N,N-dimethyl-p-toluidine 0.1 parts by wt. The **dental** materials are usable for inlays, fillings, sealants, etc.
ST **dental** material **siloxane titanoxane** filler
IT Acrylic polymers, biological studies
RL: BIOL (Biological study)
(**dental** materials, **siloxane-titanoxane** fillers for)
IT **Dental materials and appliances**
(fillers for, **siloxane-titanoxanes** as)
IT **Siloxanes** and **Silicones**, biological studies
RL: PREP (Preparation)
(prepn. of, as filler, for **dental** materials)
IT **Titanoxanes**
RL: PREP (Preparation)
(**siloxane-**, prepn. of, as filler, for **dental**

materials)
IT **Titanoxanes**
RL: PREP (Preparation)
(**siloxane-**, vinyl, prepn. of, as filler, for **dental** materials)
IT **Titanoxanes**
RL: PREP (Preparation)
(**siloxane-**, Ph, prepn. of, as filler, for **dental** materials)
IT **Siloxanes** and **Silicones**, biological studies
RL: PREP (Preparation)
(**titanoxane-**, prepn. of, as filler, for **dental** materials)
IT **Siloxanes** and **Silicones**, biological studies
RL: PREP (Preparation)
(**titanoxane-**, vinyl, prepn. of, as filler, for **dental** materials)
IT **Siloxanes** and **Silicones**, biological studies
RL: PREP (Preparation)
(**titanoxane-**, Ph, prepn. of, as filler, for **dental** materials)
IT 26426-05-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**dental** material, **siloxane-titanoxane** filler for)
IT 78-08-0 **78-10-4** 1067-25-0 2530-85-0 3087-37-4
RL: RCT (Reactant)
(reaction of, **siloxane-titanoxane** filler by, for **dental** materials)
IT **78-10-4**
RL: RCT (Reactant)
(reaction of, **siloxane-titanoxane** filler by, for **dental** materials)
RN 78-10-4 HCAPLUS
CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



L105 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2002 ACS
AN 1985:442679 HCAPLUS
DN **103:42679**
TI Composites for **dental** restoration
PA Tokuyama Soda Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08F002-44
ICS A61K006-08; C08F004-40
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60011505	A2	19850121	JP 1983-116839	19830630
	JP 04061003	B4	19920929		

AB Composites for **dental** restoration consist of (a) vinyl monomers, (b) org. peroxides, (c) amines and (d) spherical particles contg. **silica** and metal oxides (oxides of group I, II, III and IV metals). Thus, 0.1% HCl and tetra-Et **silicate** [**78-10-4**] in **MeOH** were mixed and stirred at room temp. for 2 h, followed by addn. of tetra-Bu **titanate** [5593-70-4] in iso-**PrOH** to form a mixt. Next, addnl. tetra-Et **silicate** in **MeOH** was treated with NH3-**EtOH** soln. and with the mixt. at 20.degree. for 2 h, and the resultant mixt. was evapd. and heated at 900.degree. for 4 h to give particles contg. **silica** and **TiO2**. Particles were silylated, coated with 2,2-bis(4-(2-hydroxy-3-methacryloxyphenyl))propane-triethylene glycol dimethacrylate copolymer [26426-05-1] and mixed with benzoyl peroxide [94-36-0] and 2,5-di-tert-butyl-4-methylphenol to give compn. A. Sep., polymer-coated particles were mixed with N,N-bis(2-hydroxyethyl)-4-methylaniline [3077-12-1] and 2,5-di-tert-butyl-4-methylphenol to give compn. B. An equal vol. of compns. A and B had a compressive strength of 3800 kg/cm2, and a bending strength of 81 kg/cm2 after mixing.

ST **dental** composite compn; vinyl monomer amine **dental**; peroxide vinyl monomer amine **dental**

IT Oxides, biological studies
RL: BIOL (Biological study)
(**dental** composite particles contg.)

IT Amines, biological studies
Peroxides, biological studies
RL: BIOL (Biological study)
(**dental** composites contg.)

IT Vinyl compounds, polymers
RL: BIOL (Biological study)
(polymers, for **dental** composites)

IT **Dental materials and fillings**
(**composites**, vinyl polymer-coated metal oxide particles for)

IT 1304-28-5, biological studies 1305-78-8, biological studies 1309-48-4, biological studies 1310-53-8, biological studies 1313-59-3, biological studies 1314-11-0, biological studies 1332-29-2 1344-28-1, biological studies **7631-86-9**, biological studies 11130-29-3 12057-24-8, biological studies 12136-45-7, biological studies **51745-87-0** 53801-45-9 54566-73-3
RL: BIOL (Biological study)
(**dental** composite particles contg.)

IT 94-36-0, biological studies 99-97-8 105-74-8 3077-12-1
RL: BIOL (Biological study)
(**dental** composites contg.)

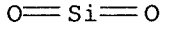
IT **78-10-4** 109-88-6 124-41-4 150-46-9 683-60-3 865-33-8 1071-76-7 2172-12-5 2269-22-9 2388-07-0 2414-98-4 2556-53-8 2914-17-2 2914-19-4 3214-53-7 5593-70-4 14254-05-8 25063-27-8 58114-86-6
RL: BIOL (Biological study)
(in metal oxide particles prepn., for **dental** composites)

IT 26426-05-1 41472-00-8 59976-92-0 81359-56-0 92783-35-2 96536-49-1 97087-44-0 97087-45-1 97087-46-2 97087-47-3 97087-48-4 97104-69-3
RL: BIOL (Biological study)
(metal oxide particles coated with, for **dental** composites)

IT **7631-86-9**, biological studies **51745-87-0**
RL: BIOL (Biological study)
(**dental** composite particles contg.)

RN 7631-86-9 HCAPLUS

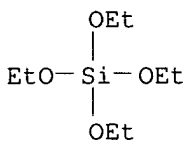
CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 51745-87-0 HCAPLUS
CN Titanium oxide (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	x	17778-80-2
Ti	x	7440-32-6

IT **78-10-4**
RL: BIOL (Biological study)
(in metal oxide particles prepn., for **dental** composites)
RN 78-10-4 HCAPLUS
CN Silicic acid (H4SiO4), tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



=> sel rn l105
E27 THROUGH E144 ASSIGNED

=> fil reg
FILE 'REGISTRY' ENTERED AT 09:33:37 ON 01 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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STRUCTURE FILE UPDATES: 29 APR 2002 HIGHEST RN 409058-68-0
DICTIONARY FILE UPDATES: 29 APR 2002 HIGHEST RN 409058-68-0

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES
for more information. See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d his l107-

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FILE 'REGISTRY' ENTERED AT 09:32:16 ON 01 MAY 2002

FILE 'HCAPLUS' ENTERED AT 09:32:46 ON 01 MAY 2002
SEL RN L105

FILE 'REGISTRY' ENTERED AT 09:33:37 ON 01 MAY 2002
L107 116 S E27-E144
L108 3 S L107 AND L41
L109 13 S L107 AND SI/ELS

```
L110          13 S L108,L109
L111           8 S L107 AND TI/ELS
L112           5 S L111 NOT L106

=> d ide can tot l112

L112 ANSWER 1 OF 5  REGISTRY  COPYRIGHT 2002 ACS
RN   7550-45-0  REGISTRY
CN   Titanium chloride (TiCl4) (T-4)- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Titanium chloride (TiCl4) (8CI)
OTHER NAMES:
CN   Tetrachlorotitanium
CN   Titanium chloride
CN   Titanium tetrachloride
CN   Titanium(IV) chloride
DR   15612-71-2, 44246-22-2
MF   Cl4 Ti
CI   COM
LC   STN Files:   AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
       CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX,
       CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT,
       ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT,
       IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT,
       RTECS*, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
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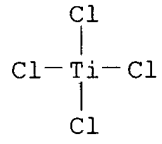

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          17649 REFERENCES IN FILE CA (1967 TO DATE)
            904 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
          17663 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE   1:  136:287409

REFERENCE   2:  136:286461

REFERENCE   3:  136:286446

REFERENCE   4:  136:284708

REFERENCE   5:  136:282960

REFERENCE   6:  136:282313

REFERENCE   7:  136:279882

REFERENCE   8:  136:279881

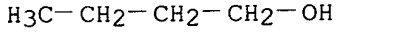
REFERENCE   9:  136:279862

REFERENCE  10:  136:279859

L112 ANSWER 2 OF 5  REGISTRY  COPYRIGHT 2002 ACS
RN   5593-70-4  REGISTRY
```

additional "Ti" cmpds in refs 1-8, see L105

CN 1-Butanol, titanium(4+) salt (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butyl alcohol, titanium(4+) salt (8CI)
CN Butyl titanate(IV) (6CI, 7CI)
OTHER NAMES:
CN 1-Butanol titanium salt (4:1)
CN B 1
CN B 1 (titanate)
CN Butyl orthotitanate
CN Butyl titanate(IV) ((BuO)4Ti)
CN n-Butanol titanium salt
CN n-Butyl titanate
CN Orgatix T 25
CN Orgatix TA 25
CN TA 25
CN TBT
CN TBT 100
CN Tetra-n-butoxytitanium
CN Tetra-n-butyl orthotitanate
CN Tetra-n-butyl titanate
CN Tetrabutoxytitanium
CN Tetrabutoxytitanium(IV)
CN Tetrabutyl orthotitanate
CN Tetrabutyl titanate
CN Tetrakis(butanolato)titanium
CN Tilcom TNBT
CN Titanium butoxide (Ti(OBu)4)
CN Titanium n-butoxide
CN Titanium tetra-n-butoxide
CN Titanium tetrabutoxide
CN Titanium tetrabutylate
CN Titanium tetrakis(butoxide)
CN Titanium(4+) butoxide
CN Titanium(IV) butoxide
CN Titanium(IV) n-butoxide
CN Titanium, tetrabutoxy-
CN Tyzor TBT
DR 176679-99-5, 757-47-1, 1336-30-7, 159179-54-1, 124760-72-1, 59978-00-6, 15821-58-6, 104183-13-3, 106206-82-0, 114486-31-6, 75659-54-0, 153313-64-5, 156138-67-9, 26198-43-6, 118547-86-7, 184529-19-9, 188622-64-2, 210407-19-5, 216859-05-1, 250741-36-7
MF **C4 H10 O . 1/4 Ti**
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DETHERM*, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, PDLCOM*, PIRA, RTECS*, SPECINFO, TOXCENTER, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
CRN (71-36-3)



1/4 Ti(IV)

6010 REFERENCES IN FILE CA (1967 TO DATE)
345 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

6023 REFERENCES IN FILE CAPLUS (1967 TO DATE)
14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:286900

REFERENCE 2: 136:286624

REFERENCE 3: 136:285915

REFERENCE 4: 136:283943

REFERENCE 5: 136:282964

REFERENCE 6: 136:282849

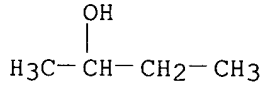
REFERENCE 7: 136:270535

REFERENCE 8: 136:270453

REFERENCE 9: 136:270332

REFERENCE 10: 136:270016

L112 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN **3374-12-7** REGISTRY
CN 2-Butanol, titanium(4+) salt (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN sec-Butyl alcohol, titanium(4+) salt (8CI)
CN sec-Butyl titanate(IV) (6CI, 7CI)
OTHER NAMES:
CN Tetra sec-butoxytitanium
CN Tetra(sec-butyl) titanate
CN Tetraisobutoxytitanium
CN Titanium tetra-sec-butoxide
DR 73740-05-3, 216859-06-2
MF **C4 H10 O . 1/4 Ti**
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, DETHERM*, USPATFULL
(*File contains numerically searchable property data)
CRN (78-92-2)



1/4 Ti(IV)

45 REFERENCES IN FILE CA (1967 TO DATE)
45 REFERENCES IN FILE CAPLUS (1967 TO DATE)
10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:125003

REFERENCE 2: 132:194842

REFERENCE 3: 130:42078

REFERENCE 4: 128:308528

REFERENCE 5: 128:300202

REFERENCE 6: 127:319409

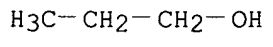
REFERENCE 7: 127:109345

REFERENCE 8: 126:239711

REFERENCE 9: 126:238153

REFERENCE 10: 126:39610

L112 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN **3087-37-4** REGISTRY
CN 1-Propanol, titanium(4+) salt (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Propyl alcohol, titanium(4+) salt (8CI)
CN Propyl titanate(IV) (Ti(OPr)4) (6CI, 7CI)
OTHER NAMES:
CN Propyl titanate
CN Tetra-n-propyl titanate
CN Tetrakis(propoxy)titanium
CN Tetrapropoxytitanium
CN Tetrapropyl orthotitanate
CN Tetrapropyl titanate
CN Titanium propoxide (Ti(OPr)4)
CN Titanium propylate
CN Titanium tetrapropoxide
CN Titanium tetrapropoxide (Ti(OPr)4)
CN Titanium tetrapropylate
CN Titanium(4+) propoxide
CN Titanium(IV) propoxide
CN Titanium, tetrapropoxy-
DR 120551-51-1, 79494-49-8, 213750-04-0, 216859-03-9, 253144-52-4
MF **C3 H8 O . 1/4 Ti**
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DETHERM*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, TOXCENTER, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
CRN (71-23-8)



1/4 Ti(IV)

753 REFERENCES IN FILE CA (1967 TO DATE)
49 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
755 REFERENCES IN FILE CAPLUS (1967 TO DATE)
34 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:251245

REFERENCE 2: 136:234208

REFERENCE 3: 136:223337

REFERENCE 4: 136:169013

REFERENCE 5: 136:136213

REFERENCE 6: 136:127756

REFERENCE 7: 136:126402

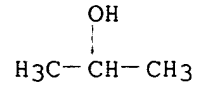
REFERENCE 8: 136:122610

REFERENCE 9: 136:122110

REFERENCE 10: 136:118890

L112 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN **546-68-9** REGISTRY
CN 2-Propanol, titanium(4+) salt (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Isopropyl alcohol, titanium(4+) salt (8CI)
CN Titanium isopropoxide (Ti(OC3H7)4) (7CI)
OTHER NAMES:
CN A 1
CN A 1 (titanate)
CN Isopropyl orthotitanate
CN Isopropyl titanate(IV) ((C3H7O)4Ti)
CN Orgatix TA 10
CN TA 10
CN Tetraisopropanolatotitanium
CN Tetraisopropoxytitanium
CN Tetraisopropoxytitanium(IV)
CN Tetraisopropyl orthotitanate
CN Tetraisopropyl titanate
CN Tetrakis(isopropanolato)titanium
CN Tetrakis(isopropoxy)titanium
CN Tetrakis(isopropylato)titanium(IV)
CN Tetrakis(isopropyloxy)titanium
CN Tilcom TIPT
CN Titanium isopropoxide
CN Titanium isopropylate
CN Titanium tetraisopropoxide
CN Titanium tetraisopropylate
CN Titanium tetrakis(iso-propoxide)
CN Titanium tetrakis(isopropoxide)
CN Titanium(4+) isopropoxide
CN Titanium(IV) isopropoxide
CN Titanium, tetrakis(1-methylethoxy)-
CN TPT
CN Tyzor TPT
DR 176680-01-6, 167709-32-2, 128796-34-9, 131530-94-4, 94340-28-0, 3651-85-2, 119651-13-7, 112797-74-7, 73264-97-8, 71515-81-6, 147809-57-2, 50336-56-6, 118815-04-6, 186518-71-8, 187601-75-8, 195382-13-9, 198699-88-6, 210407-18-4, 216859-04-0, 244173-55-5, 245654-31-3, 255839-65-7, 259264-35-2, 310882-94-1, 347859-73-8, 366477-01-2
MF **C3 H8 O . 1/4 Ti**
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)
CRN (67-63-0)



1/4 Ti(IV)

6105 REFERENCES IN FILE CA (1967 TO DATE)
339 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
6128 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:288047

REFERENCE 2: 136:286900

REFERENCE 3: 136:286888

REFERENCE 4: 136:286710

REFERENCE 5: 136:286633

REFERENCE 6: 136:286516

REFERENCE 7: 136:286445

REFERENCE 8: 136:286205

REFERENCE 9: 136:284859

REFERENCE 10: 136:283091

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FILE LAST UPDATED: 29 APR 2002 <20020429/UP>
MOST RECENT DERWENT UPDATE 200227 <200227/DW>
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=> d his l113-

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L114      23969 S E05-E?/MC
L115         75 S A61K006-093/IC,ICM,ICS
L116       2063 S L114,L115 AND E05-L01/MC
L117          1 S L116 AND A61K006-04/IC,ICM,ICS
L118          1 S L116 AND A61K033-24/IC,ICM,ICS
L119          0 S L116 AND A61K033-34/IC,ICM,ICS
L120          0 S L116 AND A61K033-38/IC,ICM,ICS
L121          0 S L116 AND A61K033-30/IC,ICM,ICS
L122          3 S L116 AND (A61K006-02 OR A61C013 OR A61P001-02)/IC,ICM,ICS
L123          3 S L113,L117,L118,L122
L124          2 S L123 NOT GOEBEL ?/AU

     FILE 'WPIX' ENTERED AT 09:46:24 ON 01 MAY 2002

     FILE 'WPIX' ENTERED AT 09:46:51 ON 01 MAY 2002

=> d all abeq tech tot

L124 ANSWER 1 OF 2  WPIX (C) 2002 THOMSON DERWENT
AN   2001-342941 [36]   WPIX
DNC  C2001-106095
TI   Dental and oralogic composition useful for treating teeth, gums and dental
     materials in or outside the mouth and for preventing diseases such as
     halitosis comprises photocatalytic titanium oxide or its precursor.
DC   A96 D21 E11
IN   KADOMA, Y; MASUHARA, E; OKADA, K; YAMAGUCHI, S; YAMAUCHI, J
PA   (KURS) KURARAY CO LTD
CYC  30
PI   US 2001002994 A1 20010607 (200136)*      14p    A61K007-16
     AU 2000071840 A  20010607 (200137)             A61K006-093     <--
     CA 2327230    A1 20010603 (200138)  EN         A61K033-24      <--
     EP 1104669    A1 20010606 (200140)  EN         A61K006-02      <--
        R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
           RO SE SI TR
     JP 2001220309 A  20010814 (200154)       10p    A61K006-04      <--
ADT  US 2001002994 A1 US 2000-728121 20001204; AU 2000071840 A AU 2000-71840
     20001127; CA 2327230 A1 CA 2000-2327230 20001201; EP 1104669 A1 EP
     2000-125309 20001128; JP 2001220309 A JP 2000-349422 20001116
PRAI JP 1999-344938   19991203
IC   ICM  A61K006-02; A61K006-04; A61K006-093;
          A61K007-16; A61K033-24
     ICS  A61C013-00; A61C013-08; A61C013-23;
          A61K006-027; A61K006-083; A61P001-02; A61P043-00
AB   US2001002994 A UPAB: 20010628
     NOVELTY - A dental and oralogic composition comprises photocatalytic
     titanium oxide or its precursor and optionally a liquid medium.
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a
     film of a composition (also claimed) comprising:
          (a) photocatalytic titanium oxide or its precursor;
          (b) at least one of (i) a silicon compound of formula (I) or its
     hydrolyzate, (ii) a silicone resin or its precursor and (iii) silica; and
          (c) a liquid medium.
          SiX1X2X3X4    (I)
          X1-X4 = alkoxy or halogen.
```

USE - The film may be applied to the surface of teeth, gums, dental materials in or outside the mouth, oral mucous membranes, tooth crown restorative materials, dentures, denture (re)bases, orthodontic bases, wires, bridges, mouth pieces, teeth restored with composite resin and teeth coated with dental manicure. The composition may be used to prevent or cure oral or dental diseases (e.g. halitosis), prevent or retard discoloration of teeth or dental materials, bleach discolored teeth and treat dental materials (all claimed).

ADVANTAGE - The film effectively prevents the adhesion of plaque to teeth and dental materials. The composition is superior to that of JP-A-175923/1997 (comprising methyl alpha -cyanoacrylate and a resin component such as polymethyl methacrylate) which polymerized extremely rapidly and had poor adhesion and safety implications.

Dwg.0/0

FS CPI
FA AB; DCN
MC CPI: A99-A; D08-A05; **E05-E02**; **E05-E03**; **E05-L01**
TECH UPTX: 20010628

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The ratio of (a) to (b) is 20/1-1/100 (in terms of moles of titanium and silicon atoms). The photocatalytic titanium oxide precursor is a titanium alkoxide. The silicone resin precursor is a silane and/or silazane compound. The liquid medium is water and/or alcohol, acetone, methyl ethyl ketone, ethyl acetate, chloroform, toluene and/or hexane. The composition further comprises a thickener and particle(s) selected from silver, copper, zinc, metal salt and their mixture.

Preferred Film: The film is produced by applying the composition to a surface, drying and/or baking, and exposing to light.

L124 ANSWER 2 OF 2 WPIX (C) 2002 THOMSON DERWENT
AN 1997-156093 [15] WPIX
DNC C1997-050120
TI Composite dental material for fillings, bonding crowns or making dentures, inlays, crowns etc. - comprises a metal oxide-silica-organic cpd. complex cpd..
DC D21 E11
IN SATO, H
PA (GCDE) GC CORP; (GCDE) GC DENTAL IND CORP; (GCGC-N) GC KK
CYC 4

PI	DE 19634189	A1	19970227 (199715)*	20p	A61K006-02	<--
	GB 2304720	A	19970326 (199716)	50p	A61K006-093	<--
	JP 09059119	A	19970304 (199719)	17p	A61K006-08	
	US 5773489	A	19980630 (199833)		A61K006-00	
	GB 2304720	B	19990818 (199935)		A61K006-093	<--

ADT DE 19634189 A1 DE 1996-19634189 19960823; GB 2304720 A GB 1996-17030 19960814; JP 09059119 A JP 1995-235987 19950823; US 5773489 A US 1996-689779 19960814; GB 2304720 B GB 1996-17030 19960814
PRAI JP 1995-235987 19950823
IC ICM A61K006-00; **A61K006-02**; A61K006-08; **A61K006-093**
ICS A61K006-027; A61K006-083; C08F283-12
ICA C08G077-20
ICI C08G079-00
AB DE 19634189 A UPAB: 19990609

Inorganic - organic composite dental filling material in whose particles visible light at 360 - 830 nm does not scatter and having a refractive index (nD) for the sodium D-line of 1460 - 1600, comprises a cpd. of formula (I)

aM1Ox/2.bSiO2.cM2O(4-i-j)/2R1iR2j (I)

M1 = Ti, Zr, Y, La, Ta or Al, bonded to Si or M2 via a crosslinking O atom ; M2 = Si and / or Ti ; R1 = non-functional gp. ; R2 = organic cpd. reacted with an organic functional gp. ; a/(a + b) = 0 - 0.65 ; c/(a + b) = 0.02 - 3 ; i = 0 - 2 ; j = 1 - 3 ; (i + j) = 1 - 3 ; and x = valency of M1.

Pref., if M2 is Si then R2 is an organic cpd. that has been reacted with a cpd. contg. an unsatd. double bond, glycidyloxy, amino, mercapto or alkoxy gp., and if M2 is Ti then R2 is an organic cpd. that has been reacted with a cpd. contg. an unsatd. double bond or an amino gp. R1 is phenyl and / or 1-10C alkyl. M1 is chosen from one or more of Zr, Y, La or Ta and a/(a + b) = 0.1 - 0.65.

USE - Used as filling material or bonding agent for securing artificial crowns, or for inlays, crowns, bridges or dentures.

ADVANTAGE - Improved surface smoothness with resistance to abrasion, improved matrix mechanical properties and reduced transparency.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D08-A01; D08-A02; E05-B03; **E05-E**; **E05-L01**; E05-M; E05-N; E05-P